

AMENDMENTS TO THE CLAIMS

This Listing of Claims will replace all prior versions and listings of claims in this application.

Please cancel claims 4, 7, 8, 10 and 11 without prejudice or disclaimer.

Listing of Claims

1. (Withdrawn) A moldable-foam molding with a density from 8 to 100 g/l, said molding obtainable via fusion of prefoamed foam beads comprising expandable, pelletized thermoplastic polymer materials, said polymer materials comprising:
from 50 to 90% by weight of polystyrene B selected from free-radical-polymerized glass-clear polystyrene (GPPS) or anionically polymerized polystyrene (APS), and
from 10 to 50% by weight of styrene copolymer A selected from styrene-butadiene block copolymer, styrene--methylstyrene copolymer, acrylonitrile-butadiene-styrene (ABS), styrene-acrylonitrile (SAN), acrylonitrile-styrene-acrylate (ASA), methacrylate-butadiene-styrene (MBS), or methyl methacrylate-acrylonitrile-butadiene-styrene (MABS) polymers.
2. (Withdrawn) The moldable-foam molding according to claim 1, wherein at least 80% of the cells of the foam beads are of closed-cell type.
3. (Withdrawn) An expandable, pelletized thermoplastic polymer material which comprises:
from 50 to 90% by weight of polystyrene B selected from free-radical-polymerized glass-clear polystyrene (GPPS) or anionically polymerized polystyrene (APS), and
from 10 to 50% by weight of styrene copolymer A selected from styrene-butadiene block copolymer, styrene--methylstyrene copolymer, acrylonitrile-butadiene-styrene (ABS),

styrene-acrylonitrile (SAN), acrylonitrile-styrene-acrylate (ASA), methacrylate-butadiene-styrene (MBS), or methyl methacrylate-acrylonitrile-butadiene-styrene (MABS) polymers.

4. (Cancelled)

5. (Currently Amended) A process for preparing expandable, pelletized thermoplastic polymer materials, comprising the steps of;

- a) preparing a mixture consisting essentially of from 50 to 90% by weight of polystyrene B selected from free-radical-polymerized glass-clear polystyrene (GPPS) or anionically polymerized polystyrene (APS), and from 10 to 50% by weight of styrene copolymer A selected from styrene-butadiene block copolymer, styrene--methylstyrene copolymer, acrylonitrile-butadiene-styrene (ABS), styrene-acrylonitrile (SAN), acrylonitrile-styrene-acrylate (ASA), methacrylate-butadiene-styrene (MBS), or methyl methacrylate-acrylonitrile-butadiene-styrene (MABS) polymers;
- b) heating the mixture using a static or dynamic mixer at a temperature of at least 150°C to form a polymer melt and to incorporate an organic blowing agent into the polymer melt , and adding an organic blowing agent to the melt ;
- c) cooling the polymer melt comprising the blowing agent to a temperature of at least 120°C,
- d) discharging the cooled polymer melt through a die plate with holes whose diameter is at most 1.5 mm, and
- e) pelletizing the polymer melt comprising the blowing agent directly downstream of the die plate under water at a pressure from 1 to 20 bar.

6. (Withdrawn) A process for producing moldable-foam moldings, according to claim 1, wherein hot air or steam is used in a first step to prefoam expandable, pelletized thermoplastic polymer materials according to claim 3 to give foam beads whose density is in the range from 8 to 100 g/l, and, in a second step, the polymer materials are fused in a closed mold.

7. (Canceled)

8. (Canceled)

9. (Withdrawn) The polymer material of claim 3, wherein the polymer mixture has a Mw from 190,000 to 400,000 g/mol.

10. (Canceled)

11. (Canceled)

12. (Withdrawn) The polymer material of claim 3, with a polydispersity Mw/Mn of from 1.5 to 2.8.

13. (Currently Amended) The process of claim 5, wherein the polymer melt comprising the blowing agent is cooled to a temperature of ~~400~~ 150 to 200°C.

14. (Previously presented) The process of claim 5, wherein the polymer melt comprising the blowing agent downstream of the die plate under water is pelletized at a pressure from 5 to 15 bar.

15. (Previously presented) The process of claim 5, wherein the temperature of the polymer melt comprising the blowing agent, when it is passed through the die plate, is in the range from 140 to 300°C.

16. (Currently Amended) The process of claim 5, wherein the temperature of the die plate is from 20 to ~~100°C~~ 100-300°C, above the temperature of the polymer melt comprising blowing agent.

17. (New) The process of claim 5, wherein the expandable, pelletized thermoplastic polymer materials comprise 3 to 7% by weight of an organic blowing agent.
18. (New) The process of claim 5, wherein the temperature of the polymer melt comprising the blowing agent, when it is passed through the die plate, is in the range from 160 to 240°C.
19. (New) The process of claim 5, wherein the diameter of the holes in the die plate is from 0.3mm to 0.8mm at the discharge from the die.
20. (New) The process of claim 17, wherein the temperature of the polymer melt comprising the blowing agent, when it is passed through the die plate, is in the range from 160 to 240°C.
21. (New) The process of claim 17, wherein the temperature of the die plate is from 20 to 100°C, above the temperature of the polymer melt comprising blowing agent.
22. (New) The process of claim 18, wherein the temperature of the die plate is from 20 to 100°C, above the temperature of the polymer melt comprising blowing agent.
23. (New) The process of claim 16, wherein the diameter of the holes in the die plate is from 0.3mm to 0.8mm at the discharge from the die.
24. (New) The process of claim 17, wherein the diameter of the holes in the die plate is from 0.3mm to 0.8mm at the discharge from the die.
25. (New) The process of claim 18, wherein the diameter of the holes in the die plate is from 0.3mm to 0.8mm at the discharge from the die.